



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,622	09/28/2001	Daniel Canon	9D-RG-19584	2283

23465 7590 02/10/2004

JOHN S. BEULICK  
C/O ARMSTRONG TEASDALE, LLP  
ONE METROPOLITAN SQUARE  
SUITE 2600  
ST LOUIS, MO 63102-2740

EXAMINER

COCKS, JOSIAH C

ART UNIT	PAPER NUMBER
----------	--------------

3749

DATE MAILED: 02/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/682,622

Applicant(s)

CANON, DANIEL

Examiner

Josiah C. Cocks

Art Unit

3749

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 1/23/04.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7, and 9-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/23/04 has been entered. As requested, the prior amendment filed 11/21/03 has also been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by applicant's admitted prior art Figure 3.

Applicant's admitted prior art Figure 3 shows a method for installing an ignition module for a flame burner to an electrical system identical to that described in applicant's claim 1 including a phase conductor (74), a neutral conductor (76), the ignition module including first and second inputs (80 and 82) and a single output (84), connecting the phase conductor to the first input of the ignition module; connecting the neutral conductor to the second input of the

Art Unit: 3749

ignition module, connecting a ground conductor (78) between the neutral conductor and a burner (22), and connecting the single output to an igniter (44).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-7 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art Figure 3 in view of *Six et al.* (US 4,519,771) (cited by applicant).

Applicant's prior art Figure 3 shows all the limitations of claims 3-7 and 9-13 including an AC power source (42) and a junction box (72), except for the use of an isolation transformer and the details of the transformer structure and location.

*Six et al.* teaches an ignition module (25) for a flame burner (1) and a method of installing the module to an electrical system in the same field of endeavor as Applicant's prior art Figure 3 wherein *Six et al.* teaches the use of an isolation transformer (6) having primary winding (6a) and secondary winding (6b) wherein the isolation transformer is arranged and located to isolate the part of the circuit comprising the burner and igniter from the AC supply source (see col. 1, line 63 through col. 2, line 12). *Six et al.* also discloses that it is specifically desirable that the conductor (3) connecting the isolation transformer, the ignition module, and the burner be electrically grounded (see col. 3, lines 34-36).

In regard to claim 11, the isolation transformer of *Six et al.* has a secondary winding identical to that shown in applicant's Figure 4. As is well understood in the art, the primary winding (6a) of the isolation transformer is connected to the neutral and phase conductors of the AC power source (see Fig. 1 and col. 1, lines 42-44). The conducting lines from the secondary winding (6b) of the isolation transformer would also necessarily include corresponding phase and neutral conductors in order to function as a isolation transformer.

Therefore, in regard to claims 3-7, and 9-13, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify applicant's prior art Figure 3 to incorporate the isolation transformer of *Six et al.* as an isolation transformer is desirably included to provide simple coupling to the control and safety elements of the system in a way that reduces costs and reduces the number of elements that make up the system (see *Six et al.*, col. 1, lines 50-59 and col. 2, lines 13-23). Further the system of *Six et al.*, which includes an isolation transformer, facilitates the isolation of the part of the circuit comprising the burner and the electrode from the AC power supply source (see *Six et al.*, col. 1, lines 60-63) and, therefore, when applicant's prior art Figure 3 is modified to include the isolation transformer of *Six et al.*, this transformer would necessarily be located between the junction box and ignition module.

### ***Response to Arguments***

6. Applicant's arguments filed 11/21/03 (entered as requested in the RCE filed 1/23/04) have been fully considered but they are not persuasive. Applicant argues that his invention is the use of an isolation transformer placed between the AC source and ignition module, which is not suggested by either Applicant's prior art Figure 3 of *Six et al.* However, as noted above, while

Art Unit: 3749

applicant's Figure 3 does not show an isolation transformer between the AC source and ignition module, *Six et al.* is in the same field of endeavor and shows such an isolation transformer. *Six et al.* describes that it is desirable to include a means of protection, as required by safety regulations, and notes that it is possible to include a resistor for this purpose (see *Six et al.*, col. 1, lines 32-42). However, *Six et al.* notes certain drawbacks to this method and proposes the use of an isolation transformer as desirable in isolating the ac supply part of the circuit and the burner part of the circuit (see *Six et al.*, col. 1, lines 50-56). The circuit proposed by *Six et al.* has two parts (see *Six et al.* col. 39-40), the first part is the ac supply portion and includes the generator (7) and control circuitry (18) which is connected to the primary winding (6a) of the isolation transformer, and the second part includes the burner, electrode and ignition module (25) which is connected to the secondary winding (6b) of the isolation transformer. *Six et al.* notes that it is desirable to ground the isolation transformer by means of ground conductor (3) (see *Six et al.*, col. 3, lines 34-36). When applicant's prior art Figure 3 is desirable modified to include the isolation transformer of *Six et al.*, this transformer would necessarily be arranged to isolate the ac supply portion of the circuit of applicant's Figure 3 and the burner and ignition portion, which includes the burner, igniter and ignition module. Therefore, the combination would produce a method and system as shown in Applicant's Figure 4 and claimed in applicant's claims 3-7 and 9-13.

The combination of applicant's prior art Figure 3 and *Six et al.* is considered by the examiner to be proper. As noted above, applicant's claims are not patentable over either applicant's Figure 3 taken alone or this Figure in view of *Six et al.*

Art Unit: 3749

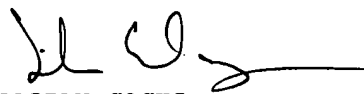
*Conclusion*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Josiah Cocks whose telephone number is (703) 305-0450. The examiner can normally be reached on weekdays from 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ira Lazarus, can be reached at (703) 308-1935. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

jcc  
February 6, 2004

  
JOSIAH COCKS  
PATENT EXAMINER  
ART UNIT 3749